



## Statistics Review Lesson 1 - Practice Set A - Handout

Name:

Date:

The shape of a distribution of data can visually provide you information about trends, patterns and outliers. Measures of center can summarize data and help you to understand more about the data set.

The data set below shows the amount weekly sales in dollars at a popular fashion store. Use this data set to answer the following questions.

Week 1: \$ 3, 500  
Week 2: \$ 3, 000  
Week 3: \$ 2, 150  
Week 4: \$ 2, 000  
Week 5: \$10,000

1. What does the distribution of data tell you?
2. Are there any outliers? How do you know?
3. What is the mean of the weekly sales for the shop over these five weeks?  
Show how you found the mean.
4. What is the median? Show how you found the median.
5. What conclusions can you make regarding the shape of the data distribution?

**Summarize numerical sets of data in relation to their context by giving quantitative measures of center as well as describing any overall pattern and any striking deviations from the overall pattern. Practice Set A, *Key***

The data set below shows the amount weekly sales in dollars at a popular fashion store.

Use this data set to answer the following questions.

Week 1: \$ 3, 500  
Week 2: \$ 3, 000  
Week 3: \$ 2, 150  
Week 4: \$ 2, 000  
Week 5: \$10,000

1. What does the distribution of data tell you?

*The data steadily decreases and then makes a huge increase.*

2. Are there any outliers? How do you know?

*There is one outlier: Week 5. Sales for Week 5 were \$10,000. This is a huge difference from the amount of sales for the other weeks.*

3. What is the mean of the weekly sales for the shop over these five weeks? Show how you found the mean.

$$\frac{3,500 + 3,000 + 2,150 + 2,000 + 10,000}{5} = \frac{20,650}{5} = \$4,130 \text{ Mean}$$

4. Is the mean a good representation of center for this data set? Why or why not?

*The mean is not a good measure of center for this data set. The outlier of \$10,000 increases the mean over all the other data values. A better measure of center might be the median which is \$2,150.*

5. What conclusions can you make regarding the shape of the data distribution?

*Weekly sales at the fashion shop were decreasing rapidly. Then, in the fifth week, sales dramatically improved. Perhaps the owners of the shop had a sale*



*which brought more customers in to buy things. Maybe it was a going out of business sale.*